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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,275	10/18/1999	MIGUEL DAJER	9-3-29	2584

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EXAMINER

RAMOS FELICIANO, ELISEO

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 03/26/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Am

Office Action Summary

Application No.

09/420,275

Applicant(s)

DAJER et al.

Examiner

ELISEO RAMOS-FELICIANO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 6, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Jan 6, 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on January 6, 2003 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Specification

2. *Previous objection to the specification is withdrawn in view of applicant's amendment filed on January 6, 2003.*

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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4. **Claims 1-5, 7-12, 14-15, and 17-18** are rejected under 35 U.S.C. 102(e) as being anticipated by Andersson et al. (US Patent Number 6,400,966).

Regarding **claims 1 and 17**, Andersson et al. discloses a base station (e.g. 200) for use in a wireless communication system; see Figures 2 and 3. The base station includes a plurality of channel unit boards (e.g. BBTX-1, BBTX-2, ... BBTX-N) each including a plurality of channel elements as depicted in Figures 9-12. A given channel unit board (e.g. BBTX-1) includes a multiplexer (MUX) which is operative to implement multi-carrier / multi-selector channel pooling by assigning a given one of the channel elements (e.g. RESOURCE, etc.) of that board to any one of the multiple carriers (e.g. Carrier 1, Carrier 2, ... Carrier N1, etc.) of the system, as depicted in Figures 4B, 7B and 9A. See the abstract, column 5, lines 1-12 & 54-63, column 6, lines 34-51, column 8, line 6 to column 10, line 22.

With respect to **claims 8, 15, and 18**, same explanation shown above for *claim 1* is applied. Andersson et al. discloses everything claimed. In addition, different channel elements of a channel unit board are “controllably assigned” to different carriers of the system; see column 10, lines 13-22 and Figures 4B, 7B, 9A, etc.

Regarding **claims 2-5 and 7**, Andersson et al. discloses everything claimed as applied above (see *claim 1*). In addition, the channel unit boards generate a set of digital in-phase (I) and quadrature (Q) signals for each of the plurality of carriers; Figure 4B & 9A. The multiplexer (MUX) is operative to connect a given one of the channel elements to an I and Q signal bus;

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Figure 9A. The I and Q signals from different channel unit boards are combined using a "Combiner"; Figure 11.

N channel elements can be assigned to N carriers in N sectors; column 10, lines 13-22 and the Figures. The disclosed wireless communication system is a CDMA system operating in either IS-95-A, B or C, with or without OTD, MC CDMA-2000 (W-CDMA), or UMTS; see column 1, line 58 to column 2, line 25, and column 11, lines 7-12.

With respect to **claims 9-12 and 14**, the same explanation shown above for *claims 2-5 and 7* is applied. Andersson et al. discloses everything claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 6, 13, 16, and 19-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (US Patent Number 6,400,966) in view of the knowledge generally available to one of ordinary skill in the art.

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Regarding **claims 6 and 13**, Andersson et al. discloses everything claimed as applied above (see *claims 1 and 8*). However, Andersson et al. fails to specifically disclose that the assignment step is performed by a control computer.

It should be noted that the assignment step is inherently performed by some kind of “controller”. On the other hand, computers are conventionally used as controllers for the known advantage of faster and more accurate performance.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to perform the assignment step by a control computer because of the advantage of faster and more accurate performance.

With respect to **claim 16**, it is rejected for the same reasons explained for *claim 1 and 6*.

As to **claims 19-23**, they are an obvious variation form of *claims 1-18*. Therefore, they are rejected for the same reasons shown above. For clarification: the above explained multiplexer (MUX) reads as the claimed “signal combiner element” and is “controllable” by the explained “control computer”. Figure 9A exhibits a set of BBTXs each including one MUX. These MUXs in combination read as the claimed “set of controllable signal combiner element”. For example, the adder (Σ) depicted in Figure 12 reads as the claimed “multi-carrier combiner.

Claims 24-27 define a receiver sub-unit of the claimed base station, while *claims 19-23* define a transmitter sub-unit of the claimed base station. *Claims 24-27* are at least obvious in view of *claims 19-23* because every transmission needs and implies a reception. Nevertheless, Andersson et al. discloses both the transmitter (Figures 9-12) and the receiver (Figures 4-8) sub-

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units of the base station (Figure 3). The same explanation found above is applied herein. The demultiplexer (DEMUX) shown in Figures 4-8 reads as the claimed "controllable selector".

Response to Arguments

7. Applicant's arguments filed on January 6, 2003 have been fully considered but they are not persuasive.

8. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a multi-carrier channel pooling arrangement") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. The claims, e.g. claim 1, require "at least a subset of the channel elements of at least one of the channel unit boards is assignable to each of a plurality of carriers of the system". For example, in Figure 9A, a subset of the channel elements (Resource-1,... and/or Resource-M₆) of at least one channel unit boards (BBTX-1) is assignable to each of a plurality of carriers (Carrier 1... Carrier N1) of the system. The claim language is too broad. How many are "at least a subset", or "at least one of the channel unit boards"? As explained above, Andersson et al. entirely meets this limitation.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any response to this Office action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

for formal communications intended for entry, informal communications or draft communications; in the case of informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to

Crystal Park II
2121 Crystal Drive
Arlington, VA
Sixth Floor (Receptionist).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eliseo Ramos-Feliciano whose telephone number is (703) 305-0078. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (703) 308-6739. The fax phone number for this Group is (703) 872-9314.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700, or call Group customer service at (703) 306-0377.

ELISEO RAMOS-FELICIANO
PATENT EXAMINER

ERF/erf

March 21, 2003.


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

3/24/03